PN7

COST-EFFECTIVENESS OF PRAMIPEXOLE IN PARKINSON'S DISEASE IN THREE COUNTRIES

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OBJECTIVES: A pharmacoeconomic model is used to estimate the costs and cost-effectiveness of treating Parkinson's disease patients with pramipexole in Canada, Germany, and Sweden.
METHODS: We developed a cost-effectiveness model that linked Unified Parkinson's Disease Rating Scale (UPDRS) Part II (ADL) and III (Motor) scores to disease progression, costs, and quality-adjusted life years (QALYs). Data were obtained from clinical trials, literature review, and a survey of 193 patients' resource use and health utility. Country-specific data on treatment patterns were collected using panels of physician experts in each country. Cost and QALY estimates from the model were used to estimate the incremental cost-effectiveness of pramipexole relative to baseline treatment. Separate analyses were performed for early and advanced Parkinson's patients. Extensive sensitivity analyses were performed.
RESULTS: In Canada and Germany, treatment with pramipexole has higher costs but is more effective than baseline treatment. In Sweden, treatment with pramipexole has lower costs and is more effective than baseline treatment. The incremental cost-effectiveness ratios for early patients in Canada, Germany, and Sweden are $CDN 28,097, DM 26,780, and -SEK 41,161, respectively (in 1997 currency). For advanced patients, the corresponding ratios are $CDN 25,090, DM 49,168, and -SEK 27,386. These ratios are lower than the cost-effectiveness ratios of many widely used medical treatments.
CONCLUSIONS: Subject to the inherent limitations of modeling chronic disease progression and subsequent health utility and costs, the results indicate that pramipexole is a cost-effective treatment for early and advanced Parkinson's disease patients in Canada, Germany, and Sweden.

PULMONARY AND ARTHRITIC DISORDERS

PP1

CHARACTERISTICS OF CHRONIC AIRWAY DISEASE PATIENTS STARTED ON NEBULIZED IPRATROPIUM SOLUTION

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BACKGROUND: There has been an important increase in the use of nebulized ipratropium solution (NIS) in the ambulatory treatment of elderly patients with chronic airway disease. Since these are relatively expensive medications, it is important to define the characteristics and the natural history of the patients who are started on this therapy and compare them with those of the patients started on ipratropium metered dose inhalers (IMDI) or oral theophylline (OT).
METHODS: The Quebec health insurance program (RAMQ) database was used for the study. The index date was the first dispensation of NIS (n = 761), IMDI (n = 3870), or OT (n = 10355). The consumption of drugs and medical services was measured during the 12 months before the index date.
RESULTS: At the time therapy was initiated, patients started on NIS had had more hospitalization days for chronic airway disease (NIS: 2.97, IMDI: 0.92, OT: 0.12). They were also much heavier users of beta-agonists (NIS: 13.53, IMDI: 4.9, OT: 0.11) and inhaled corticosteroids (NIS: 4.63, IMDI: 2.1, OT: 0.37). The fact that patients started on NIS had a more advanced form of chronic airway disease was confirmed by their much higher mortality rates (percent and 95% CI) during the 12 months following their index date (NIS: 17.2 [14.3–20.1], IMDI: 8.3 [7.5–9.1], OT: 4.9 [4.6–5.3]).
CONCLUSION: Patients are started on NIS when they have reached a very advanced form of their disease, as shown by their high mortality rates and extremely heavy use of beta-agonists.

PP2

THE EFFECT OF AGE ON COST-EFFECTIVENESS IN THE TREATMENT OF MODERATE ASTHMA

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OBJECTIVE: The aim of this work is to identify the effect of age on cost-effectiveness in the treatment of moderate asthma patients with inhaled corticosteroids.
METHODS: The cost-effectiveness analysis was conducted as a retrospective analysis of clinical trial data. The data of one open and one double-blind multicenter, parallel group study comparing the efficacy of Fluticasone and Flunisolide were pooled. The pooled intent-to-treat (ITT) group consisted of 308 patients. Because of the retrospective nature of the study, only the costs of treatment medication and of concomitant medication were included. No hospital admissions occurred. The adverse event costs were identified as negligible and therefore omitted. Because physicians' visits were protocol driven, they were also excluded. Effectiveness (successfully treated patients) was defined by an increase in peak flow of 5% or more. Total treatment costs for each age group were calculated and divided over the number of patients fulfilling the effectiveness criterion.
RESULTS: Total average daily treatment costs per patient were DM 4.58 (sd = DM 1.61). The average cost-effectiveness ratio per successfully treated patient was DM 7.84 (sd = DM 1.72). The cost-effectiveness ratios